

IOWA DEPARTMENT OF NATURAL RESOURCES

ADMINISTRATIVE ORDER

IN THE MATTER OF:

City of Manson

Public Water Supply Facility No. 1351027

ADMINISTRATIVE ORDER

NO. 2011-WS-01

**TO: City of Manson
Mayor David George
PO Box 430
Manson, IA 50563**

I. SUMMARY

This administrative consent order (Order) is issued to the City of Manson (City). This Order is issued due to the City's failure to meet the conditions of its operation permit and for its failure to be a viable water supply system. This Order requires the City to:

- (1) Complete construction of the well, piping, and bulk load-out station and have them operational by May 31, 2011.
- (2) Pay an administrative penalty of \$10,000.00.

Any questions regarding this Order should be directed to:

Relating to technical requirements:

Julie Sievers, Environmental Specialist,
Field Office No. 3
Iowa Department of Natural Resources
1900 N Grand Street
Spencer, Iowa 51301
Ph: 712/732-8350

Relating to legal requirements:

Diana Hansen, Attorney at Law
Legal Services Bureau
Iowa Department of Natural Resources
502 E. 9th Street
Des Moines, Iowa 50319-0034
Ph: 515/281-6267

Direct payment of penalty to:

Iowa Department of Natural Resources
502 East 9th Street
Des Moines, Iowa 50319-0034

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II. JURISDICTION

This Order is issued pursuant to Iowa Code section 455B.175(1), which authorizes the Director to issue any order necessary to secure compliance with or prevent a violation of Iowa Code chapter 455B, Division III, Part 1, and the rules promulgated or permits issued pursuant thereto; and Iowa Code section 455B.109 and 567 Iowa Administrative Code (IAC) chapter 10 (455B), which authorize the Director to assess penalties.

III. STATEMENT OF FACTS

1. The Manson Water Supply produces water for the City. The City has a population of 1,893, plus one service connection outside of the incorporated boundary. This public water supply system (PWS) has approximately 845 service connections and produces an average of 179,000 gallons of water per day. This PWS receives its water from two deep wells located in the Manson Impact Structure. Treatment for this facility consists of an antiscalant and filtration through a five micron filter for pretreatment, reverse osmosis (RO) for the removal of fluoride, liquid chlorination for disinfection, and calcium chloride and sodium bicarbonate addition for stabilization. The City's PWS has failed to meet peak day demand on several occasions forcing it to distribute raw water which exceeds the maximum contaminant level (MCL) for fluoride. It has also failed to meet the compliance schedule for the construction of a new well which would help the City meet its peak demand.
2. On June 7, 2006, the City contacted the Iowa Department of Natural Resources (Department) stating that it could not meet the water demand of its customers and that the water tower level was dropping. The Department requested that the City implement conservation measures to allow the system to meet demand and to fill the water tower.
3. On June 9, 2006, the Department was informed that conservation measures had not been implemented for the general public. Three major water users had been contacted and had cut back on water usage. The Department sent a letter to the City requiring it to submit a plan to resolve the short-term water shortage by June 14, 2006. The letter also required a long-term shortage plan by July 31, 2006. On June 11- 13, 2006, the City pumped raw water containing fluoride levels above the Maximum Contaminant Level (MCL) to the distribution system.
4. On June 14, 2006, the Department received the short-term water plan. On August 18, 2006, the long-term shortage plan was received by the Department. On September 29, 2006 the Department responded to the City's long-term plan questioning the assumptions made in the long-term plan and asking for supporting documentation. On October 23, 2006, additional information was received from the City to support the City's long-term plan.
5. On June 28, 2007, the City failed again to meet the demand for water on the water supply system. The treatment plant was forced to run 24 hours a day and yet the water level in the water tower continued to drop. Environmental Specialist Senior Julie Sievers, from the Department's Field Office No. 3 (FO 3) met with Mayor David George (Mayor) and Water Superintendent Jeff

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Kirchoff (Water Superintendent) to discuss the problems. Increased demand for City water had been occurring since about June 24, 2007. The City had not enacted all of the water shortage plans submitted in 2006. The City was required to implement the additional portions of the plan and to restrict use.

6. On July 9, 2007, the Department sent a letter to the City requiring the City to enact the water shortage plan, to enforce mandatory conservation measures if the plan did not work, and to submit an engineering study addressing the source and treatment plant capacity problems no later than September 30, 2007.
7. On July 9, 2007, the Water Superintendent contacted the Department and requested permission to pump raw water into the system. The raw water contained fluoride levels above the fluoride MCL.
8. On July 10, 2010 the Department granted the City permission to pump raw water with several stipulations. The Department required the City to give immediate public notice, to leave water restrictions and conservation measures in place, and to enact further mandatory measures if demand could not be met. The public water supply system was classified as not viable due to the system's failure to meet peak daily demand. The City was required to complete and submit a viability assessment to the Department by no later than September 30, 2007.
9. On July 25, 2007, the Department issued a revised water supply operation permit to the City. The compliance schedule in the permit required a viability assessment and engineering study to be completed and submitted to the Department by September 30, 2007.
10. On October 18, 2007, the Department received a letter from the City that stated that the City had contracted with JEO Consulting Group Inc. to prepare the water treatment facility evaluation. The City advised the Department that it expected that the preliminary engineering report would be completed within 150 days or approximately March 1, 2008.
11. On October 30, 2007, the City was sent a notice of violation (NOV) letter for failing to meet the compliance schedule in the operation permit issued on July 25, 2007. Public notification was required for this violation.
12. On November 2, 2007, the Department issued a revised operation permit to the City. The compliance schedule in the revised permit required the viability assessment to be completed by November 30, 2007 and the engineering study to be completed by March 1, 2008. The Department received the viability assessment from the City on November 2, 2007.
13. On January 9, 2008, Ms. Sievers, FO 3, visited the City's PWS and met with the Water Superintendent. During the visit the operation permit and compliance schedule dates were discussed. The Superintendent reported that one large water user, the concrete plant, had been removed from the system.

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14. The Department received the preliminary engineering report from the City on March 3, 2008. On April 23, 2008, the Department responded concerning its review of the preliminary engineering report and the viability assessment. The viability assessment review found several items that needed attention. Some were included in the preliminary engineering report as items to be addressed in the City's project while others were not addressed. The preliminary engineering report was approved with the requirement that the system develop additional source water capacity.
15. On April 25, 2008, a revised operation permit was issued to the City. The permit included a compliance schedule for source water capacity and treatment improvements. The schedule required the City to obtain an approved well site by August 31, 2008, submit plans and specifications for improvements to the Department by November 30, 2008, to start construction of the new well by February 28, 2009, and to complete construction no later than February 28, 2010.
16. On May 14, 2008, Ms. Sievers, FO 3, met with the Water Superintendent to discuss the Department's April 23, 2008 letter and the April 25, 2008 water supply operation permit. The water shortage plan and the triggers required to enact the plan were reviewed. The Superintendent reported that the City had contacted the Department's Geologic Survey Section for information and had contacted Xenia Rural Water (Xenia) to discuss connection to Xenia as an alternate source of water.
17. On July 21, 2008, the Department was copied on a letter from Xenia to the City. Xenia had given the City a deadline of June 23, 2008 to respond to Xenia's offer and that the City had not responded. The letter stated that Xenia was moving forward with its project but there was still a possibility that a partnership could be arranged if the City wanted to purchase water from Xenia.
18. On September 18, 2008, the Department sent a NOV letter to the City for failure to meet the compliance schedule requirements of the permit issued on April 25, 2008. The City failed to acquire a well site by the date in the compliance schedule.
19. On September 18, 2008, a revised operation permit was issued to the City. The permit changed the compliance schedule for source water capacity and treatment improvements since the City had missed the deadline. The schedule required the City to obtain an approved well site by October 31, 2008. The other compliance dates remained the same.
20. On September 23, 2008, the Department sent the City a letter stating that the City did not have a source or treatment capacity to meet the demands of its customers. The letter reminded the City that it was required to have sufficient source capacity to meet peak day demands with its largest well out of service. The letter also reminded the City of the deadlines.
21. On October 30, 2010, Ms. Sievers, FO 3, received a letter by fax from the City requesting an alternate schedule for determining the City's source water capacity and treatment options. The City's letter stated that further investigation was necessary to determine the appropriate course of

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action. The City's letter stated that its goal was to focus on the completion date set by the Department.

22. On October 31, 2008, the Department responded to the request for an alternate schedule by allowing three additional months for completion of an addendum to the preliminary engineering report submitted by the City in February 2008. The Department's response required that the addendum be submitted no later than January 31, 2009, and required that specific information be included in the addendum. It also required the City to submit in writing its decision concerning the selected alternative by February 16, 2009.

23. On November 4, 2008, a revised operation permit was issued to the City. The permit extended the compliance date for completion of the engineering report to January 31, 2009. The final completion date for the project remained at February 28, 2010.

24. The City's Water Superintendent resigned on November 5, 2008. By a letter dated November 5, 2008, the Department informed the City that it did not have a properly certified operator. The Department's letter required a response from the City by December 15, 2008 concerning how the City planned to obtain a certified operator.

25. By a letter dated December 3, 2008, the City informed the Department that a City employee would become certified by November 5, 2009. The City's letter stated that in the alternative, the City would obtain a properly certified operator or an operator by affidavit. On December 4, 2008, the Department approved the City's plan to have a City employee become certified by November 5, 2009.

26. On January 12, 2009, the Department received a letter from the City's engineering consultant. The letter requested that the Department review the proposed average and peak demand data for the City. The values were required for the addendum to the preliminary engineering report. By a letter dated January 14, 2009, the Department responded to the consultant's letter generally agreeing to the consultant's calculations and noting three concerns.

27. The Department received the draft preliminary engineering report on January 20, 2009. On January 21, 2009, Ms. Sievers, FO 3, conducted four well site surveys for the City's PWS. Three of the selected well sites in the preliminary engineering report met the required separation distances. The City either owned the sites or planned to purchase the sites.

28. On January 29, 2009, the Department received the final preliminary engineering report. On February 9, 2009, the Department sent a letter to the City stating that the Department was in general agreement with the concepts, conclusions and recommendations in the preliminary engineering report. The letter included four additional comments. The letter also included a reminder that the Department must receive written acceptance of the selected report alternative by February 16, 2009.

29. On February 16, 2009, the Department received a fax from the City's attorney stating that the City decided to accept the first alternative with some exceptions. The exceptions included

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construction of a new well and transmission line, removal of two agricultural customers from the system, and providing the agricultural customers with raw water for commercial purposes.

30. On February 18, 2009, the Department sent the City attorney a letter responding to the City's selection of the first alternative with exceptions. The letter included three items that the City needed to address for the Department could make a decision on the acceptability of the proposed changes to the first alternative. The Department's letter required that additional information be submitted to the Department by March 19, 2009.

31. On March 2, 2009, Ms. Sievers, FO 3, conducted a sanitary survey of the City's PWS. The sanitary survey identified three significant deficiencies. The City was reminded of its compliance schedule deadlines.

32. By a letter dated March 3, 2009, the Department sent the City attorney a letter clarifying that the information to be submitted by March 19, 2009 was required to be submitted as an addendum to the preliminary engineering report. The Department's letter stated that the addendum was required to be prepared by an engineer licensed in Iowa.

33. On April 6, 2009, the Department sent the City a letter approving three of the well sites. The three sites were approved with the stipulations concerning legal control, maintenance of separation distances for the life of the well, and drainage. The fourth potential well site was not approved by the site survey.

34. On April 8, 2009, the Department sent the City a letter stating that the addendum to the preliminary engineering report required to be submitted by March 19, 2009 had not been received. The final deadline for submission of the addendum or choice of an approved alternative of April 24, 2009 was communicated to the City. The letter also stated that the City must meet the capacity needs no later than February 28, 2010.

35. On April 30, 2009, the City and Department staff met to discuss the project. The City selected an alternative that was not included in the engineering study. The City agreed to submit an addendum to the engineering report by May 15, 2009.

36. On May 1, 2009, a revised operation permit was issued to the City. The permit revised the compliance schedule dates which required the submission of an addendum to the preliminary engineering report by May 15, 2009 and completion of construction of the selected alternative by February 28, 2010. The Department received the addendum on May 13, 2009.

37. On May 22, 2009, the Department sent a letter to the City stating that the addendum to the preliminary engineering report did not contain all of the needed information. The Department's letter requested that additional information be provided by June 4, 2009.

38. On June 1, 2009, the Department received a letter from the City's consultant addressing the items outlined in the Department's May 22, 2009 letter. By a letter dated June 8, 2009, the Department sent a letter to the City stating that the Department was satisfied that the City's

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proposal would meet the system's existing demands and that the report was approved. The Department's letter included seven concerns and comments.

39. The Department received a letter from the City on August 3, 2009 that stated that the City had hired Mr. Kirchoff, the former water superintendent, as its new water superintendent. On August 27, 2009, the Department met with Mr. Kirchoff to discuss the project. The project requirements were discussed with Mr. Kirchoff, including the completion deadline for the project of February 28, 2010.

40. On September 24, 2009, the Department received an NPDES permit application from the City for an NPDES permit for the discharge from the water treatment plant. The Department required the City to apply for this permit as of its May 22, 2009 letter.

41. On September 25, 2009, the Department received a request from the City's consultant requesting that the Department extend the deadline for completion of the project. The consultant submitted plans and specifications with the request. The specifications were later resubmitted since the SRF front-end documents were not included. On October 14, 2009, the Department denied the request to extend the completion date. The Department's letter stated the City had ample time to complete the project prior to the February 28, 2010 deadline.

42. On October 14, 2009, the Department denied the request to extend the completion date for the City's project. The Department's letter stated that it believed that the City had ample time to complete the project prior to the February 28, 2010 deadline.

43. On October 19, 2009, the City was issued an NOV letter for failing to submit the Consumer Confidence Report (CCR) certification form. The City was required to mail the CCR to all of its customers for failing to meet to the compliance schedule. On November 12, 2009, the CCR certification form was received by the Department. Public notice for the compliance schedule violation was included with the form.

44. On November 13, 2009, the Department sent the City a letter with its review of the self assessment for water system viability completed as part of the Drinking Water State Revolving Fund (DWSRF) loan process. The letter included four requirements and recommendations including the requirement for the City Council to obtain financial training through the Iowa Association of Municipal Utilities (IAMU). This was required to be scheduled by December 4, 2009.

45. On January 11, 2010, the required training for the City was conducted by IAMU. This training had been scheduled for early December 2009 but was postponed due to severe weather. It was determined that the City would need to increase its water rates to cover the loan repayment.

46. On February 11, 2010, Mayor George contacted the Department and on February 12, 2009, the City's consultant contacted the Department. Both stated that the City planned to use the DWSRF loan for financing the water project. They were aware that the City would be required

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to raise water rates and planned to attempt this at a City council meeting on February 24, 2010. They were informed that a construction permit could not be issued until the loan repayment funding is in place. They were advised that the water rate increase would be necessary prior to loan repayment funding to be finalized. Both the mayor and the consultant were advised that the project was required to be completed by February 28, 2010.

47. On March 17, 2010, a compliance schedule violation was issued to the City for failure to meet the February 28, 2010 deadline. On March 19, 2010, the Department issued the City a water supply construction permit for the project. This occurred after the City dropped its request for a DWSRF loan for the project.

48. On June 7, 2010, the City informed the Department that it had not been able to meet water demand for at least a four day period in May 2010. The Water Superintendent informed the Department that the City had enacted the water storage contingency plan on May 28, 2010. This included no use at all by the two agricultural users. During a four day period the City's water treatment plant ran 24 hours per day and did not keep up with demand. After the no use period and rainfall, the system was able to meet demand and the restrictions were lifted.

IV. CONCLUSIONS OF LAW

1. Iowa Code section 455B.172 makes this Department the agency of the state to conduct the public water supply program. Iowa Code section 455B.171 defines a public water supply system as a system for the provision of piped water for human consumption, if the system has at least fifteen service connections or regularly serves at least twenty-five individuals. Iowa Code sections 455B.173(3), (5), and (6) authorize the Environmental Protection Commission (Commission) to promulgate rules relating to the operation of public water supply systems and to adopt drinking water standards to assure compliance with federal standards adopted pursuant to the federal Safe Drinking Water Act. The Commission has the authority to adopt rules relating to monitoring, record keeping, and reporting requirements for any public water supply. The Commission has adopted such rules at 567 IAC chapters 40- 43.

2. Rule 567 IAC 40.2(455B), further defines public water supply by defining "community water system" as a public water supply which has at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents, consistent with federal regulations. This PWS is classified as a community water system.

Operation Permit Compliance

3. Subrule 43.2(2) requires that no person shall operate any public water supply system or part thereof without, or contrary to any condition of, an operation permit issued by the Director. Subrule 43.2(5), subparagraph "a," states that operation permits may contain such conditions as are deemed necessary by the Director to ensure compliance with all applicable rules of the Department, to ensure that the public water supply system is properly maintained, to ensure that

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potential hazards to the water consumer are eliminated promptly, and to ensure that the requirements of the Safe Drinking Water Act are met. Subrule 43.2(5), subparagraph "b," states that where one or more MCLs, treatment techniques, designated health advisories, or action levels cannot be met immediately, a compliance schedule for achieving compliance with standards may be made a condition of the permit. The City violated these subrules by its failure to comply with the compliance schedules in its water supply operation permits.

Viability Assessment

4. Subrule 43.8(5), subparagraph "a"(2), requires that existing public water supply systems categorized as being in significant noncompliance by the department due to their history of failure to comply with drinking water standards, are required to complete a viability assessment for the department's review and approval. "Significant noncompliance" means the failure to comply with any drinking water standard. See subrule 43.8(1). The viability assessment must address the areas of technical, financial, and managerial viability for a public water supply system. The assessment must include evaluation of the following areas at a minimum. The public water supply may be required to include additional information as directed by the Department. The viability of a system should be forecast for a twenty year period.

a. Technical Viability

- (1) Supply sources and facilities,
- (2) Treatment, and
- (3) Infrastructure (examples: pumping, storage, and distribution).

b. Financial Viability

- (1) Capital and operating costs
- (2) Revenue sources
- (3) Contingency plans.

c. Managerial Viability

- (1) Operation
- (2) Maintenance
- (3) Management
- (4) Administration

V. ORDER

THEREFORE, the Department orders the City to comply with the following provisions in order to abate and redress violations of Department rules and the facility's public water supply operation permit:

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- (1) Complete construction of the well, piping, and bulk load-out station and have them operational by May 31, 2011.
- (2) Pay an administrative penalty of \$10,000.00 within 60 days of receipt of this Order.

VI. PENALTY

Iowa Code section 455B.191 authorizes the assessment of civil penalties of up to \$5,000.00 per day of violation for the violations involved in this matter. Iowa Code section 455B.109 authorizes the Commission to establish by rule a schedule of civil penalties up to \$10,000.00 that may be assessed administratively. The Commission has adopted this schedule with procedures and criteria for assessment of penalties in 567 IAC chapter 10. Pursuant to this chapter, the Department has determined that the most effective and efficient means of addressing the above-cited violations is the issuance of an order with an administrative penalty. The administrative penalty assessed by this order is determined as follows:

a. Economic Benefit. There have been cost savings to the City. The City delayed construction of the well, the transmission line, and the bulk load-out station. This will save the City the engineering costs and actual construction costs. While these costs will be incurred by the City when the project is constructed, the City has delayed these costs for a considerable time period. The amount of \$3,000 is assessed for these delayed cost savings.

b. Gravity of the Violation. One of the factors to be considered in determining the gravity of a violation is the amount of penalty authorized by the Iowa Code for the type of violation. As indicated above, substantial civil penalties are authorized by statute. Despite the high penalties authorized, the Department has decided to handle the violations administratively at this time, as the most equitable and efficient means of resolving the matter.

The City has put their customers and public water supply at risk by not being able to provide adequate water during periods of peak demand. While there is no evidence of actual pressure losses, with the much lower tower levels, pressure drops were calculated to occur. In addition, the City repeatedly pumped raw water into the system containing fluoride levels above the MCL. The raw water contains fluoride of 4.7 to 4.8 mg/L which is above the fluoride MCL of 4.0 mg/L. Fluoride levels above the MCL can cause bone disease, including pain and tenderness of the bones.

Additionally, a tremendous amount of Department staff time has been spent on this project. Several letters were received, reviewed, and responses sent, operation permits were revised, and other correspondence took place. Therefore, \$3,000.00 is assessed for this factor, due to multiple violations.

c. Culpability. The City has not considered failure to meet peak day demand a problem even though it has been forced to limit water usage by certain users and has been required to institute conservation measures. The City has delayed construction of the well, transmission line,

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and bulk load-out station even though it has been aware of the problem since June 2006. In the operation permit issued in April 2008, the City was to have construction completed by February 28, 2010 but failed to take any action to meet that deadline. Several interim compliance scheduled dates were set and missed repeatedly as was the deadline to meet peak demand. Presently, the City is still not able to meet peak day demand. Therefore, \$3,000.00 is assessed for this factor.

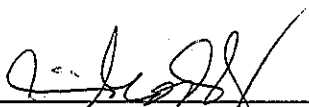
d. Mitigating or Aggravating Factors. According to the agricultural users in the area, they have not been consulted about the project and have not been informed of these changes except by the Department. Therefore, \$1,000.00 is assessed for this factor.

VII. APPEAL RIGHTS

Pursuant to Iowa Code section 455B.175(1), and 561 IAC 7.4(1), as adopted by reference by 567 IAC chapter 7, a written notice of appeal to the Commission may be filed within 30 days of receipt of this Order. The notice of appeal should be filed with the Director of the Department, and must identify the specific portion or portions of this Order being appealed and include a short and plain statement of the reasons for appeal. A contested case hearing will then be commenced pursuant to Iowa Code chapter 17A and 561 IAC chapter 7.

VIII. NONCOMPLIANCE

Failure to comply with this Order may result in the imposition of further administrative penalties or referral to the Attorney General to obtain injunctive relief and civil penalties pursuant to Iowa Code section 455B.191. Compliance with Section V. of this Order constitutes full satisfaction of all requirements pertaining to the specific violations described in this Order.



PATRICIA L. BODDY, INTERIM DIRECTOR
IOWA DEPARTMENT OF NATURAL RESOURCES

Dated this 14 day of

January, 2011

City of Manson, Iowa - Water Supply Facility No. 1351027, Julie Sievers - Field Office No. 3,
James Warren- Water Supply Operation Section, Diana Hansen- Legal Services Bureau, II.B.2.b,
II. C.1.f.